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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------------------------------------|-------------|--------------------------|---------------------|------------------|
| 09/915,603 | 07/26/2001 | Alvin Charles Richardson | 13018:19 | 8249 |
| 33697 | 7590 | 06/14/2004 | EXAMINER | |
| GREGORY SCOTT SMITH P.O. BOX 88148 ATLANTA, GA 30356 | | | BASHORE, WILLIAM L | |
| | | ART UNIT | | PAPER NUMBER |
| | | 2176 | | b |
| DATE MAILED: 06/14/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|--------------------------------|-------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/915,603 | RICHARDSON ET AL. |
| | Examiner William L. Bashore | Art Unit 2176 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 20 March 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-30 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

1. This action is responsive to communications: original application filed 7/26/2001, said application is a CIP of application 09/294,701 filed **4/19/1999** (allowed, not yet issued).
2. Claims 1-30 are pending. Claims 1, 16 are independent claims.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

In regard to dependent claim 20, claim 20 recites the limitation “*specified filtering criterion*”, and “*The computer readable medium*”. There is insufficient antecedent basis for this limitation in the claim. It appears Applicant may have intended claim 20 to be dependent upon claim 19, since claim 19 appears to be the only claim providing proper support for the limitations in question regarding claim 20. The examiner’s suggestion of changing claim 20 so as to be dependent upon claim 19 will overcome this rejection.

Examiner’s Note

4. For the purpose of examination on the merits, the following rejections are based upon a possible interpretation of claim 20 as dependent upon claim 19.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. **The claimed invention (as claimed in claims 1-15) are directed to non-statutory subject matter.**

In regard to independent claim 1, the combined limitations of claim 1 can be interpreted as a series of manual and/or mental steps, therefore said claim is directed towards non-statutory subject matter. The examiner's suggestion of changing the preamble of said claim to read "A computer executable method for..." will overcome this rejection.

In regard to dependent claims 2-15, claims 2-15 are rejected for fully incorporating the deficiencies of their base claims.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huck, G., et al. (hereinafter Huck), Jedi: extracting and synthesizing information from the Web, IEEE Cooperative Information Systems 1998, August 20-22, 1998, pp.32-41, in view of Weigel, A. et al. (hereinafter Weigel), Lexical postprocessing by heuristic search and automatic determination of the edit costs, IEEE Document Analysis and Recognition, 1995, August 14-16, 1995, pp.857-860.**

In regard to independent claim 1, Huck teaches a method of wrapper generation (JEDI) for extracting data from documents, said method comprising creating grammars for identifying patterns of symbols, said pattern containing prefix, value, and suffix patterns (Huck Abstract, also section 3 “Extraction Language”, second column, especially “<string><blanks><number><blanks><number>”). It is noted that Huck relies upon a combination of pattern matching (as explained above) with grammars in its implementation.

Huck teaches resolving ambiguities by exploring all possible solution, and then picking the best solution, therefore teaching identification and eventual selection of candidate matches, based upon ranking (Huck section 4 “Parsing Strategy”, fifth paragraph from top of said section, see also section 7 “Conclusion and Further Research”, especially second paragraph from top of said section).

Huck does not specifically teach determining a “cost” associated with choosing a “best” ranked solution (candidate match). However, Weigel teaches automatic determination of edit costs (Weigel page 857, Title, section 1 “Introduction” – especially at top of second column, also page 859 section 6 “Learning the values of y”). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the edit costs of Weigel to Huck’s ranking, providing Huck the benefit of increased accuracy in its ranked results.

In regard to dependent claims 2, 3, Huck does not specifically teach edit distances. However, Weigel teaches Insertions, substitutions, and deletions, which are used in calculating edit distances (operations) (see Weigel page 858 sections 3 and 4, also page 859 – at top of first column; compare with claim 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Weigel to Huck, providing Huck the benefit of edit distance calculations for more accurate candidate selection.

Huck teaches an example pattern string (Huck section 3 “Extraction Language” – second column; compare with claim 3).

In regard to dependent claims 4, 5, Huck teaches generation of all possible solutions (spans of interest), as well as subjecting patterns/grammars as filters (Huck section 3 “Extraction Language” second paragraph from bottom of said section). Huck also teaches an example implementation of its invention comprising the query (typically involving keywords) of extracted data (Huck section 5 “Example”).

In regard to dependent claims 6, 7, 8, Huck does not specifically teach thresholds, or lowest cost selection. However, Weigel teaches thresholds, as well as calculations for determining lowest costs (Weigel page 859 section 5 “Speeding up the search”). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Weigel to Huck, providing Huck the benefit of edit distance calculations for more accurate candidate selection.

In regard to dependent claims 9, 10, 11, Huck does not specifically teach adjustments, or weights, or addition. However, Weigel teaches calculations for determining costs, as well as adjustments and weights (Weigel page 859 section 5 “Speeding up the search”, section 6 “Learning the values of y”, also page 858 section 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Weigel to Huck, providing Huck the benefit of various edit distance calculations for more accurate candidate selection.

In regard to dependent claim 12, claim 12 incorporates substantially similar subject matter as claimed in claim 1, and is rejected along the same rationale.

In regard to dependent claims 13, 14, Huck teaches generation of all possible solutions (spans of interest), as well as subjecting patterns/grammars (i.e. regular expressions) as filters (Huck section 3 “Extraction Language” second paragraph from bottom of said section). Huck also teaches an example implementation of its invention comprising the query (typically involving keywords) of extracted data (Huck section 5 “Example”).

In regard to dependent claim 15, claim 15 incorporates substantially similar subject matter as claimed in claim 1, and is rejected along the same rationale.

In regard to claims 16-30, claims 16-30 reflect the computer readable medium comprising computer executable instructions used for performing the methods as claimed in claims 1-15, respectively, and are rejected along the same rationale.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

| | | | |
|--------------------|---------------------------|--------|---------|
| Carus, Alwin B. | U.S. Patent No. 5,890,103 | issued | 03-1999 |
| Hunter, Kenneth M. | U.S. Patent No. 6,018,735 | issued | 01-2000 |

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bashore whose telephone number is (703) 308-5807. The examiner can normally be reached on Monday through Friday from 11:30 AM to 8:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild, can be reached on (703) 305-9792.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Art Unit: 2176

11. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703-872-9306) (for formal/after-final communications intended for entry)

**Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Fourth Floor (Receptionist).**



William L. Bashore
Patent Examiner, AU 2176
June 10, 2004